

MATERIAL SAFETY DATA SHEET

Sumilarv® Insect Growth Regulator

Date of Issue: September 27th, 2006

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: Sumilarv® Insect Growth Regulator
Other names: None
Chemical group: Pyridine
Product code: 4209655 (500 mL)
Formulation: Aqueous concentrate
Recommended use: An aqueous concentrate insect growth regulator insecticide
Supplier: Bayer Environmental Science – A Business Group of Bayer CropScience Pty Ltd
ABN 87 000 226 022
Address: 391 - 393 Tooronga Road, East Hawthorn
Victoria 3123, Australia
Telephone: (03) 9248 6888
Facsimile: (03) 9248 6800
Website: www.bayercropscience.com.au
Contact: Technical Manager (03) 9248 6888
Emergency Telephone Number: 1800 033 111 – Orica SH&E Shared Services

2. HAZARDS IDENTIFICATION

NON-HAZARDOUS SUBSTANCE - NON-DANGEROUS GOOD

Hazard designation: Not hazardous (National Occupational Health and Safety Commission - NOHSC)
Risk phrases: Not applicable
Safety phrases: See Sections 4, 5, 6, 7, 8, 9, 13
ADG classification: Not "dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
SUSDP classification: Exempt

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (g/L):
Pyriproxyfen	[95737-68-1]	20
Propylene glycol	[57-55-6]	300
Other ingredients	(non-hazardous)	727

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4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

Inhalation:	Remove person to fresh air. Keep at rest. Seek medical advice if exposure has been more than trivial.
Skin contact:	Wash off skin immediately with soap and plenty of water. Seek medical advice if irritation persists. Launder contaminated clothing before re-use.
Eye contact:	Immediately rinse eyes thoroughly, including under eyelids, with running water for at least 15 minutes. Seek medical advice.
Ingestion:	Rinse mouth with water. Seek medical advice.
First Aid Facilities:	Provide washing facilities in the workplace.
Symptoms:	No specific symptoms are associated with this product. No human poisoning cases have been observed. Pyriproxyfen is an insect juvenile hormone analogue and therefore mammalian toxicity is low. In animal experiments, only diarrhoea was observed.
Medical attention:	Treatment should be symptomatic and supportive. Gastric lavage is not required. However, the application of activated charcoal and sodium sulphate can be considered in significant ingestions.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Foam, dry chemical or water spray. Do not use water jet from fire hose.
Hazards from combustion products:	In the event of fire, the formulation of gaseous oxides of carbon and nitrogen should be anticipated.
Precautions for fire fighters:	Firefighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Contain fire-fighting water by bunding area with sand or earth to prevent it entering any bodies of water. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be avoided.

6. ACCIDENTAL RELEASE MEASURES

Dealing with spills and disposals may result in the potential for increased personal exposure. Protective clothing and equipment as described in the PERSONAL PROTECTION section should be worn. Avoid contact with spilled material or contaminated surfaces. Contain spill and absorb with earth, sand, clay, or other absorbent material. Sweep up and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. Keep people away. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority. Neutralising chemicals are not needed.

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7. HANDLING AND STORAGE

Handling: Keep out of reach of children. Avoid contact with the eyes and skin. Do not inhale spray mist.

Storage: Store product in the closed, original container in a cool, well-ventilated area away from direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards: No exposure standard has been assigned by the National Occupational Health and Safety Commission (Worksafe Australia).

Engineering controls: Control process conditions to avoid contact. Use local exhaust ventilation.

Personal Protective Equipment:

Eyes:	Avoid contact with the eyes. Wear chemical goggles when handling product.
Clothing:	Avoid contact with skin. Wear suitable protective clothing. Protective clothing must be stored separately from private clothing.
Gloves:	Avoid contact with the skin. When preparing spray wear elbow-length PVC gloves.
Respiratory:	Do not inhale spray mist.
Other:	Wash thoroughly after handling. Do not eat, drink or smoke until after washing. After each day's use wash gloves, goggles and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear pale yellow liquid
Odour:	Negligible
Vapour pressure:	As water
Vapour density:	Not available
Boiling point:	Not available
Solubility:	Forms an emulsion
Specific gravity:	1.047 g/mL at 20°C
pH:	8.2 (undiluted)
Flash Point:	Not applicable
Flammability (explosive) limits:	Not applicable
Percentage Volatiles:	<10%
Octanol/water partition coefficient:	Not available
Formulation:	Micro-emulsion

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10. STABILITY AND REACTIVITY

Chemical stability:	Non-flammable. Stable under normal conditions of use.
Hazardous polymerisation:	Not available
Conditions to avoid:	Extreme heat.
Incompatible materials:	Avoid oxidising agents.
Hazardous decomposition products:	In the event of fire, oxides of carbon and nitrogen may be released.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Inhalation:	Inhalation of spray mist may cause irritation of the mucosa.
Skin contact:	May cause irritation of the skin.
Eye contact:	Will irritate the eyes.
Ingestion:	Irritating to gastrointestinal tract
Other:	None

ANIMAL TOXICITY DATA – PRODUCT: No data available for the product.

ANIMAL TOXICITY DATA – ACTIVE INGREDIENT:

Acute:

Oral toxicity:	LD ₅₀ rat: > 5000 mg/kg (pyriproxyfen)
Dermal toxicity:	LD ₅₀ rat: > 2000 mg/kg (pyriproxyfen)
Inhalation toxicity:	LC ₅₀ (4 h) rat: > 1300 (pyriproxyfen)
Skin irritation:	Not irritating – rabbit (pyriproxyfen)
Eye irritation:	Not irritation – rabbit (pyriproxyfen)
Sensitisation:	Not sensitising – Guinea pig (pyriproxyfen)

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Chronic:

The toxicity profile of pyriproxyfen indicates that the long-term use of this product should not result in adverse health effects.

12. ECOLOGICAL INFORMATION

Do not contaminate streams, rivers, or waterways with the chemical or used containers.

Fish toxicity:	LC ₅₀ (96h) > 0.325 mg/L rainbow trout (pyriproxyfen)
Daphnia toxicity:	EC ₅₀ (48h) = 0.40 mg/L (pyriproxyfen)
Toxicity to algae:	EC ₅₀ (72h) = 0.064 mg/L (pyriproxyfen)
Bird toxicity:	LD ₅₀ > 2000 mg/kg mallard ducks and bobwhite quail (pyriproxyfen)
Bee toxicity:	Not available
Other:	None
Environmental fate, persistence and degradation:	Not available

13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

UN number:	Not applicable
Proper shipping name:	Not applicable
Class and Subsidiary Risk:	Not "dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
Packing Group:	Not applicable
EPG:	Not applicable
Hazchem code:	Not applicable

15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988

Australian Pesticides and Veterinary Medicines Authority Approval Number: 45923

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16. OTHER INFORMATION

Trademark information:	Sumilarv [®] is a Registered Trademark of Sumitomo Chemical Co. Ltd.
Preparation information:	Replaces April 7 th , 2004 edition. Reason for update: Formulation composition, First aid measures, Firefighting measures, Accidental release measures, Ecological information.
Data sources:	Bayer CropScience Pty Ltd product safety data and published data

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS